

US PTO Cust. No. 25280

Case No. 2102REI

41.(Amended) The airbag fabric of claim 40 wherein said woven fabric substrate is adhered to a film comprising materials selected from the group consisting of polyurethane, polyacrylate, polyamide, polyester, and copolymers thereof.

42.(New) The airbag fabric of Claim 40 wherein said woven fabric has a cover factor below about 1750 and fibers having deniers equal to or less than 420.

43.(New) The airbag fabric of Claim 42 wherein said woven fabric has a cover factor below about 1750 and fibers having deniers equal to or less than 420.

#### REMARKS

The claims remaining after this request for reissue are 1-43. No claims have been deleted. Claims 1, 2, 6, 7, 10, 11, 14, 15, and 18 have been amended. Claims 21-43 have been added. The title as issued was incorrect from that of the application as originally filed and thus has been corrected to remedy the simple misspelling of the word "possessing" as "processing". The specification has been amended to merely reflect the fact that cover factors of at most 1775 and 1750 and preferred embodiments of the inventive fabric. Such limitations were originally included within the claims but were omitted by mistake from the specification. Thus, no new matter has been added to correct for this.

The amendments to the Claims, as well as the newly added claims, have been submitted in an effort to correct for a mistake regarding the misconception of previously produced airbag fabrics. In particular, it recently came to the attention of the inventor that the woven fabric at least similar in

US PTO Cust. No. 25280

Case No. 2102REI

cover factor weave structure to that of his Example 7, but coated with thick silicone-based coatings for low permeability (not with other types, such as lower density polyurethanes, polyacrylates, and the others now present within independent claim 21), was produced and sold commercially at a date uncertain in terms of his filing date, but most likely at a date more than one year prior to such a filing date (e.g., prior to September 24, 1998). Thus, in an effort to correct for the broad limitations of patented Claim 1 in U.S. Pat. No. 6,294,487 (which basically encompasses any coated or laminated airbag fabric exhibiting a cover factor below 1900 and a very low air permeability), Assignee now requests the amendments as submitted above. Clearly, the Examples 1-6 include airbag fabrics included a film adhered thereto and of very low cover factors and thus do not include any new matter. Claims 21-39 encompass coated airbag fabrics of very low cover factors, but which are basically not coated with silicones (which require very thick add-on weights to provide the desired low air permeabilities). Proper basis for such claims is found on col. 4, lines 52-61, as well as in Example 7. No new matter has been added. Claims 40-43 also find support within the original claims, Examples 4 and 5, and within the first amended paragraph noted above. Thus, no new matter has been added. Entry and due consideration of such preliminary amendments are thus earnestly solicited.

Respectfully submitted,

February 4, 2002

William S. Parks  
Attorney for Assignee  
Registration Number 37, 528  
Telephone: (864) 503-1537

CERTIFICATE OF EXPRESS MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as "Express Mail" Identification number EL825877453US in an envelope addressed to Box Reissue, The Commissioner of Patents, Washington, DC 20231, on February 4, 2002.

\_\_\_\_\_  
William S. Parks, Attorney for Assignee

US PTO Cust. No. 25280

Case No. 2102REI

## MARKED-UP VERSION OF AMENDMENTS TO U.S. PAT. NO. 6,296,919

IN THE SPECIFICATION:

The first full paragraph in column 3 has been amended to read:

--To achieve these and other objects and in accordance with the purpose of the invention, as embodied and broadly described herein, the present invention provides an airbag fabric for incorporation within an airbag cushion comprising a woven fabric substrate, at least a portion of which is coated or laminated, wherein said woven fabric substrate has a cover factor below about 1900, preferably below about 1775, more preferably below about 1750, and most preferably, for laminated fabric, below about 1600, and wherein the air permeability of said airbag fabric is less than about 0.5 cfm under 124 Pa pressure at about 25°C. The utilization of a coating or laminate (i.e., film) provides the desired low degree of air permeability over the covered portion of the airbag fabric. In this instance, the term "laminate" is intended to encompass a continuous film which is bonded to the fabric structure through the utilization of a bonding agent. Thus, such a bonding agent may be applied first to the fabric surface and then covered by the laminate. Or, the bonding agent may be incorporated on the side of the laminate which is to be in contact with the fabric surface. The film structure of the laminate thus differs significantly from the standard airbag coatings previously used in such applications since the laminate is continuous, must be adhered to the surface through the utilization of such a bonding agent, and is applied to the fabric as a film. Coatings generally are applied through a method in which the coating material is of very high viscosity (i.e., from about 10,000 to about 100,000 centipoise at 1 atmosphere and [25EC]

US PTO Cust. No. 25280

Case No. 2102REI

25°C) and applied by a standard coating mechanism (such as a knife coater). Such coatings would only be applied to fabric substrates which possess cover factors of between 1600 and 1900 since, even though the viscosities of such coatings would be extremely high and thus allow for maximum adhesion to the individual yarns, the spaces between such yarns would be too voluminous to permit sufficient, continuous filling of such spaces too provide the necessary air permeability of fabric substrates possessing densities below about 1600.--

The second full paragraph in column 4 has been amended to read:

The general method followed in adhering the laminate to the target airbag fabric surface comprises coating the fabric with the bonding agent; laminating the desired film to at least a portion of the treated fabric by running the fabric through a heated nip roll including the to-be-applied film; and heating the resultant composite to a bonding temperature of between about 270 and [450EF] 450°F; more preferably from about 290 to about [400°] 400°F; most preferably from about 300 to about [350EF] 350°F. This high temperature effectuates the desired bonding of the film to the fabric surface through the melting of the film materials which then deform to meet the contours and dimensions of the fabric surface. Upon cooling the adhered, deformed film retains its structural integrity as a laminate over the entire treated fabric surface, which fills the spaces between the loosely packed yarns. The laminate is flexible enough to permit sufficient inflation upon a collision event to provide a cushion to a passenger or driver; however, the film also exhibits a rigidity over the individual yarns such that the yarns do not much appreciably from their set woven pattern. As such, the laminate, in filling the interstitial spaces between the yarns as well as preventing movement of the yarns

US PTO Cust. No. 25280 Case No. 2102REI  
from their set pattern, thus provides the airbag fabric (and consequently the airbag cushion)  
with a remarkably reliable manner of reducing air permeability through the fabric structure.  
Such a novel procedure thus accords the artisan with a manner of utilizing inexpensively  
produced fabric exhibiting a low cover factor (below about 1900) to produce an effective  
airbag fabric and cushion for utilization within a vehicle restraint system.--

IN THE CLAIMS:

1.(Amended) An airbag fabric for incorporation within an airbag cushion comprising a woven fabric substrate, at least a portion of which is [coated or laminated] adhered to a film, wherein said woven fabric has a cover factor below about 1900, and wherein the air permeability of said airbag fabric is less than about 0.5 cfm under 124 Pa pressure at about 25°C.

2.(Amended) The airbag fabric of claim 1 wherein said woven fabric substrate is [coated or laminated with a coating or] adhered to a film comprising materials selected from the group consisting of polyurethane, polyacrylate, polyamide, polyester, and copolymers thereof.

10.(Amended) The airbag fabric of claim 4 wherein said [coating or laminate] film comprises polyurethane.

US PTO Cust. No. 25280

Case No. 2102REI

11.(Amended) The airbag fabric of claim 10 wherein the thickness of said [coating or laminate] film is from 0.1 to about 3.5 mils.

14.(Amended) The airbag fabric of claim 3 wherein said [coating or laminate] film comprises polyurethane.

15.(Amended) The airbag fabric of claim 14 wherein the thickness of said [coating or laminate] film is from 0.1 to about 3.5 mils.

18.(Amended) The airbag fabric of claim 1 wherein the thickness of said [coating or laminate] film is from 0.1 to about 3.5 mils.